

9 Social Media

9.1 Introduction

The landscape of social engagement has changed.

Consumers are now driving interactions online, propelled by the emergence and rapid rise of social media within the past 10 years. The various social media channels have greatly eased the reconnecting of old friends and making of new ones. Barriers are disappearing, social circles are growing – all this appeals to people’s need to connect with communities of like-minded people, or people with similar interests. Importantly, netizens are now discovering alternative channels to express their opinions and share ideas globally, thus contributing to the vast amount of user-generated content on social media platforms.

This report aims to give the reader an insight into recent developments on the social media landscape. Starting from the underlying technology advancements, we will move on to a discussion of social media trends and related social technologies before closing the chapter with a discussion on implications of developments.

9.2 Moving Towards A Hyper Connected World

Online computing and communication have become ubiquitous. This unprecedented connectivity allows mobile phone users to access the Internet, almost anywhere and at anytime of the day. Mobile Internet usage - the use of a browser on a mobile device - is on the increase, with the unique number of mobile Internet users in the USA up by 47% over the last year, according to the “State of the Media: The Social Media Report”¹ released by Nielsen in September 2011. The mobile Internet audience at social networking sites increased by 62% during the same period as publishers continued to optimise their content across a new generation of connected devices.

The underlying technology trend points to an increase in mobile phone users. According to the International Telecommunication Union (ITU), there were an estimated 5.9 billion mobile phone users worldwide toward the end of 2011, representing a global penetration of 87%.² Mobile broadband subscriptions have also grown by 45% annually over the past four years and today it is estimated that there are twice as many mobile broadband, as there are fixed broadband, subscriptions. In terms of coverage, by mid 2011, 3G services were available to 45% of the world’s population; 2G services covered twice that volume. This growth has set the foundation for increased access to social networks on mobile channels.

¹ Nielsen Wire. Social Media Report: Spending Time, Money and Going Mobile. [Online] Available from: http://blog.nielsen.com/nielsenwire/online_mobile/social-media-report-spending-time-money-and-going-mobile/ [Accessed 9th July 2012].

² International Telecommunication Union. The World in 2011: ICT Facts and Figures. [Online] Available from: <http://www.itu.int/ITU-D/ict/facts/2011/index.html> [Accessed 9th July 2012].

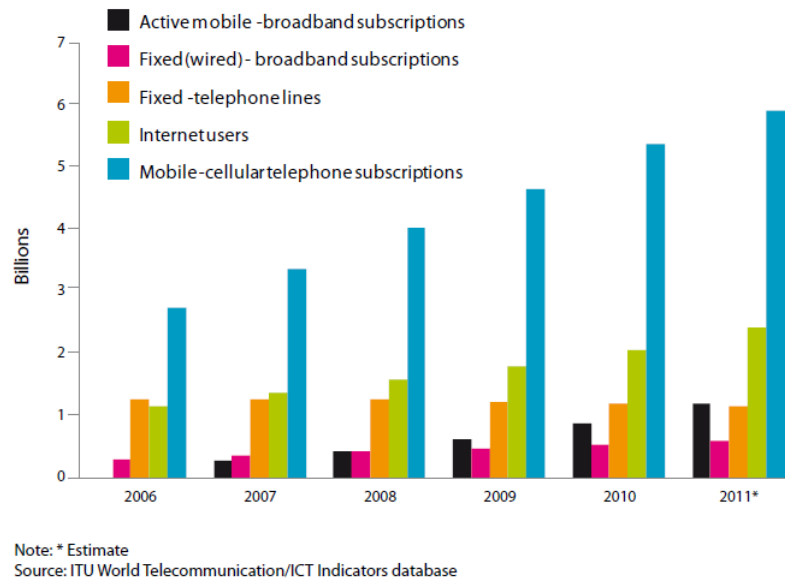


Figure 1: Mobile broadband subscriptions grew rapidly over the past four years³

9.3 Smartphones and Tablets Revolutionise Social Media Consumption

The smartphone and the Internet have transformed the way we connect, communicate and build communities. Signalling a transition from the world of desktop connectivity to mobile connectivity, smartphone ownership globally has grown exponentially, with implications for social networking and other forms of social media interaction.

As of May 2012, 110 million US consumers owned smartphones, with just over 50% using the Google platform and 31.8% using the Apple platform.⁴ In Q1 2012, nearly 7.7 billion smartphones with a total value of over US\$2.4 billion were sold in South-East Asia. The presence, convenience and always-on connectivity of smartphones have added to the volume of text messaging, blogging and Internet access activity on sites such as Facebook, Tumblr and Twitter.

The Nielsen report showed that social networking apps are the third most used type of mobile applications among US smartphone owners. In addition, close to 40% of social media users access social media content from their mobile phones and iPads. In a separate report, Steven van Belleghem, managing partner at InSites Consulting, revealed that 38% of Internet users have smartphones and are more intensive users of social networks than those without smartphones.⁵

³ International Telecommunication Union. The World in 2011: ICT Facts and Figures. [Online] Available from: <http://www.itu.int/ITU-D/ict/facts/2011/index.html> [Accessed 9th July 2012].

⁴ Social Media Today. The State of Social Media 2012: Will Facebook Go the Way of the Mayans. [Online] Available from: <http://socialmediatoday.com/drew-hendricks/512533/state-social-media-2012-will-facebook-go-way-mayans> [Accessed 9th July 2012].

⁵ Steven Van Belleghem. Social media around the world 2011. [Online] Available from: <http://www.slideshare.net/stevenvanbelleghem/social-media-around-the-world-2011> [Accessed 9th July 2012].

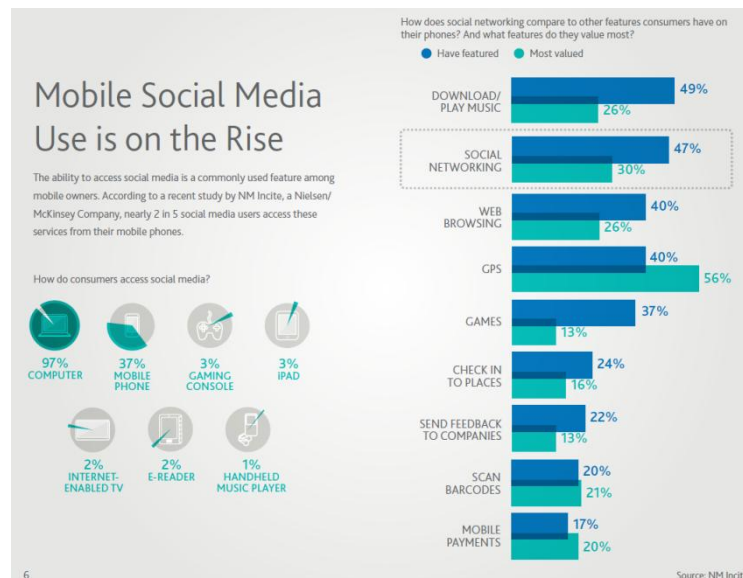


Figure 2: A large proportion of people access social media from mobile phones⁶

The enhanced user interface (UI) on smartphones and tablets is another key factor in the increased use of social media. With higher computing power, better graphics and optimised applications to access the most popular social networks on different platforms, users are able, and more keen, to access their social networks on the go.

9.4 The Social World

“Social media” is a term that has been used to refer to social networks such as Facebook, Twitter and LinkedIn though its origins are unknown (Forbes published a useful article⁷ regarding the contenders). A universally agreed upon definition also remains to be derived though many have suggested different interpretations.⁸ This “looseness” or even “elusiveness” captures the very essence of social media – it belongs to everyone and no one.

Generally, “social media” refers to online sites which exhibit the characteristics of participation, openness, conversation, community and connectedness.⁹ The social nature comes from the active and “live” interaction with other people, some of whom remain anonymous. The term “media” constitutes the content that is generated as participants publish or broadcast information, share personal and professional data, and collaborate in online communities of interest.

9.4.1 Phenomenal growth in social networks

Participation in the more popular forms of social media (namely blogs, microblogs, wikis, video sharing sites, photo sharing sites and most prominently, social networks) continues to grow exponentially.

⁶ Nielsen Wire. Social Media Report: Spending Time, Money and Going Mobile. [Online] Available from: http://blog.nielsen.com/nielsenwire/online_mobile/social-media-report-spending-time-money-and-going-mobile/ [Accessed 9th July 2012].

⁷ Jeff Bercovici. Who Coined ‘Social Media’? Web Pioneers Compete for Credit. [Online] Available from: <http://www.forbes.com/sites/jeffbercovici/2010/12/09/who-coined-social-media-web-pioneers-compete-for-credit/> [Accessed 9th July 2012].

⁸ Heidi Cohen. 30 Social Media Definitions. [Online] Available from: <http://heidicohen.com/social-media-definition/> [Accessed 9th July 2012].

⁹ Anthony Mayfield. What is Social Media. [Online] Available from: http://www.icrossing.co.uk/fileadmin/uploads/eBooks/What_is_Social_Media_iCrossing_ebook.pdf [Accessed 9th July 2012].

Belleghem’s insights revealed that more than 1 billion people (i.e., more than 70% of the Internet population) use social networks, with many joining more than one. In the USA, people join an average of 2.1 social networks while Europeans join an average of 1.9 social networks. By end 2011, there were over 181 million blog sites worldwide compared to 36 million just five years earlier.¹⁰ Overall, 6.7 million people publish blogs on blogging websites and another 12 million write blogs using their social networks.

Nielsen’s “The Social Media Report” also revealed that social media has a strong influence on consumer behaviour, both online and offline. In the USA, social networks and blogs continue to dominate Americans’ time online, now accounting for nearly a quarter of total time spent on the Internet. Social media has grown rapidly – today nearly 4 in 5 active Internet users visit social networks and blogs.

Closer home, a ComScore report¹¹ showed that out of the nearly 3 million Internet users in Singapore, more than 90% visit social networking sites, with Facebook, Twitter and LinkedIn taking the top three spots.

SOCIAL NETWORKING COUNTRY SNAPSHOT

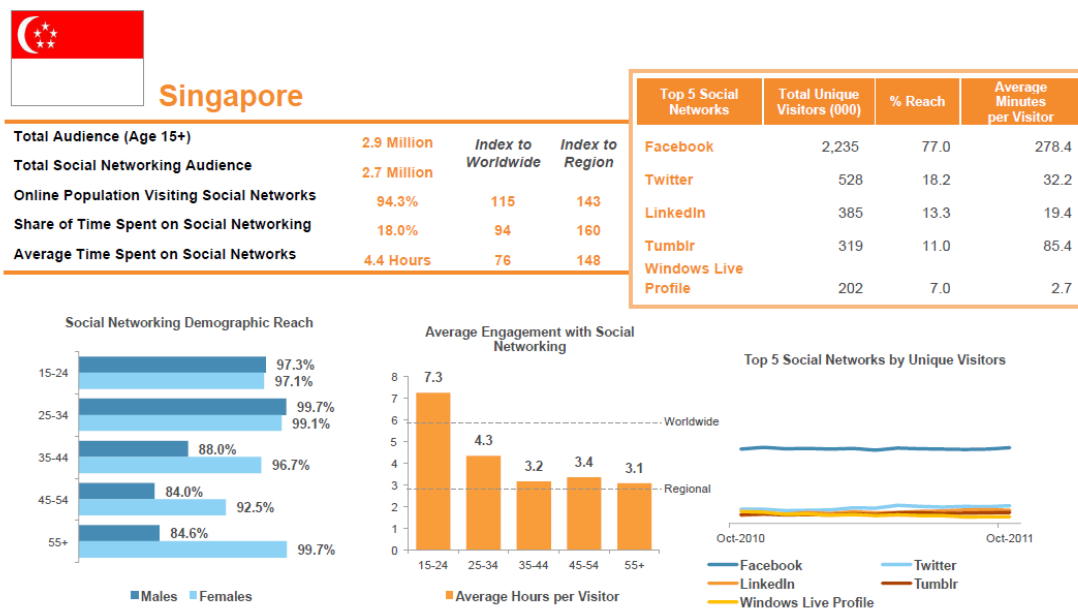


Figure 3: Social networking use in Singapore¹²

Social media evolves at a rapid rate. It would not be surprising if by the time this report reaches the reader, the figures have changed. Startups delivering new concepts of social media, or building on existing ones, are sprouting every day, challenging the definition of social media and the ways user can interact with one another on the Internet through mobiles, tablets, laptops and other devices.

9.4.2 Digital natives lead the way in the use of social networks

¹⁰ Nielsen Wire. Buzz in the Blogosphere: Millions More Bloggers and Blog Readers. [Online] Available from: http://blog.nielsen.com/nielsenwire/online_mobile/buzz-in-the-blogosphere-millions-more-bloggers-and-blog-readers/ [Accessed 9th July 2012].

¹¹ ComScore. It’s a Social World: Social Networking Leads as Top Online Activity Globally, Accounting for 1 in Every 5 Online Minutes. [Online] Available from: http://www.comscore.com/Press_Events/Press_Releases/2011/12/Social_Networking_Leads_as_Top_Online_Activity_Globally [Accessed 9th July 2012].

¹² ComScore. It’s a Social World: Social Networking Leads as Top Online Activity Globally, Accounting for 1 in Every 5 Online Minutes. [Online] Available from: http://www.comscore.com/Press_Events/Press_Releases/2011/12/Social_Networking_Leads_as_Top_Online_Activity_Globally [Accessed 9th July 2012].

Digital natives¹³ generally refer to the younger generation of teenagers and young adults aged 15-24 who are driving the use of social networks. Growing up alongside computers, the Internet and digital media, social networking is the norm for communication for this generation, in the same way that e-mail and short messaging services (SMSes) are the typical communication channels for older adults today.

ComScore provided an analysis of the communication habits of these digital natives, offering a clue as to how people in the future would communicate. From July 2010 to October 2011, 15-24 year olds saw the largest decline in their use of instant messaging and e-mail, outpacing overall declines in average time spent on these categories across other age groups. Simultaneously, 15-24 year olds also saw the biggest increase in average time spent on social networking. To date, these demographics show the highest average engagement with social networking worldwide. The data collectively suggests that much of the communication going on between 15-24 year olds happens through social networks. As this generation matures and carries this highly social behaviour into the future, it is possible that social networks could become the most important communication channel across all age groups.

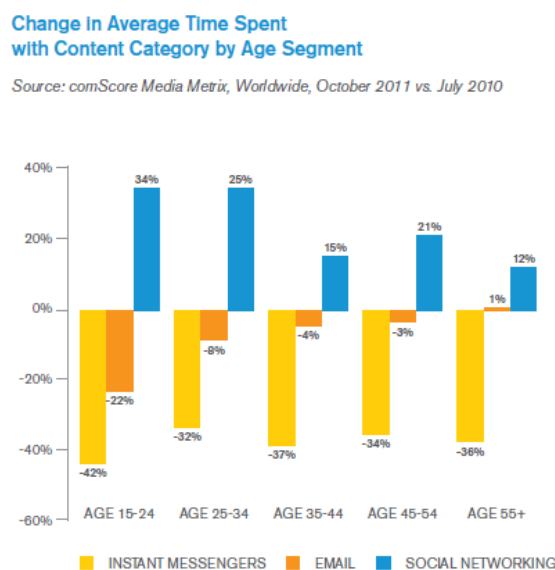


Figure 4: Digital natives are using social networking increasingly for communication¹⁴

To further demonstrate the impact digital natives could have on communication through social networks, the Pew Internet and American Life Project¹⁵ recently analysed the drivers for the most viral YouTube video to date - “Kony 2012”¹⁶ - and attributed its viral success to social media users between 18 and 29 who were sharing links on Twitter and Facebook. In the space of a few days since its posting, the video had become an international sensation on YouTube, garnering almost 70 million views.

9.4.3 The social graph defines online identity

Relationship building through social networks creates an implicit social graph which links individuals

¹³ Marc Prensky. Digital Natives, Digital Immigrants. [Online] Available from: <http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf> [Accessed 9th July 2012].

¹⁴ ComScore. It’s a Social World: Social Networking Leads as Top Online Activity Globally, Accounting for 1 in Every 5 Online Minutes. [Online] Available from: http://www.comscore.com/Press_Events/Press_Releases/2011/12/Social_Networking_Leads_as_Top_Online_Activity_Globally [Accessed 9th July 2012].

¹⁵ Lee Rainie, et al. The Viral Kony 2012 Video. [Online] Available from: <http://pewinternet.org/Reports/2012/Kony-2012-Video/Main-report.aspx> [Accessed 9th July 2012].

¹⁶ Invisible Children, Inc. Kony 2012. [www.youtube.com].

together in a web of interconnections. This presents a digital map of each individual's identity. The contextual and social information contained within paint a detailed picture of who the individual is, who the user associates with and what the user likes. Facebook CEO, Mark Zuckerberg, is one of the proponents of the social graph and amidst a backlash about privacy, introduced the Open Graph in 2010 to create communities outside of the Facebook platform as well.¹⁷ The proliferation of Facebook is the key reason why the "six degrees of separation"¹⁸ between people has been challenged - research by Facebook revealed that this figure is now closer to four.¹⁹

With social network users so closely intertwined, it is likely that services centred on social data will gain traction. Social search, social recommendations, social commerce and all things "social" could open up new markets, delivering personalised and relevant information to individuals.

9.5 Social Media Democratises the Landscape of Engagement

Social media is a tool but one that has the power of "reach" - influencing social conduct, bringing about social change and challenging norms beyond geographical, ideological and cultural boundaries. We have seen the power of social media in political uprisings in the Middle East and presidential elections in the USA. We have seen the effectiveness of social media in crisis management during the major earthquakes in Haiti and Japan. And we have seen how crowdsourcing enables micro economies to take root and flourish into sizeable economies with global participation.

The use of social media by policy makers is gradually increasing. On 30 January 2012, President Barack Obama held his first virtual interview on his State of the Union Address at a Google+ Hangout – this was the first virtual interview from the White House. In end 2011, Republican Darrell Issa, Chairman of the House Oversight and Government Reform Committee, started a website, KeeptheWebOpen.com, to encourage US citizens to comment, and add to the conversation, on the Online Protection and Enforcement of Digital Trade Act (OPEN). This Wikipedia-like resource represented the most visible crowdsourcing effort in US policy crafting.

In April 2012, the Icelandic constitution council posted its first draft of the constitution on its website and encouraged citizens to comment on a Facebook page. In July 2012, a group of 25 citizens presented a draft of the constitution to parliament in Iceland. This development represented the first crowdsourced constitution for a country.

Similar movements have occurred in the Middle East. In Morocco, King Mohamad VI created a committee to revise the Moroccan constitution. A crowdsourcing website was set up, gathering opinions from 150,000 Moroccans on the constitutional amendments. This led the committee to reflect the crowdsourced opinions in the new draft constitution.²⁰ In Egypt, a Presidential candidate set up a crowdsourcing platform in July 2011, with the help of volunteers from a series of hackathons held at Stanford University, to engage policy administrators and citizens in drafting a new constitution.

Content sharing has taken off with online interaction. For instance, Technology Entertainment and Design (TED)'s 1,200 talks have been translated into 86 languages through volunteer efforts and have been viewed

¹⁷ Jeff Korhan. What Your Business Needs to Know About Social Graphs. [Online] Available from:

<http://www.socialmediaexaminer.com/what-your-business-needs-to-know-about-social-graphs/> [Accessed 9th July 2012].

¹⁸ Six degrees of separation refers to the idea that everyone is on average approximately six steps away, by way of introduction, from any other person on Earth (according to Wikipedia.org)

¹⁹ Emma Barnett. Facebook cuts six degrees of separation to four. [Online] Available from:

<http://www.telegraph.co.uk/technology/facebook/8906693/Facebook-cuts-six-degrees-of-separation-to-four.html> [Accessed 9th July 2012].

²⁰ Tanja Aitamurto. The Cloud in Egypt; Help or Hype? [Online] Available from: <http://spot.us/pitches/986-the-cloud-in-egypt-help-or-hype/updates/1072-constitutional-crowdsourcing-site-launched> [Accessed 9th July 2012].

collectively more than 800 million times.²¹ TED embraced community trends and designed their talks for optimisation on the small screens of mobile phones, and for easy download and viewing on other mobile devices.

In terms of news reporting, social media platforms provide a rich, multi-faceted series of accounts that capture the immediacy and presence of crises and environmental disasters. News of the March 2011 earthquake and tsunami in Japan was broadcast instantaneously through video clips, images and blog entries from social media sites, providing a depth of direct reporting and diversity of viewpoints in addition to mainstream media reports. Satellite imagery, combined with Google Earth technology, enabled news organisations to show overhead images of how towns looked before and after the tsunami.

It is difficult to ignore the fact that social media has become a part of many people's daily lives. As Internet users continue to grow their networks online, social media becomes an essential channel for information dissemination, consensus seeking, collective action and decision making. As such, it is important to understand the main drivers of social media and derive an appropriate strategy to leverage it to support organisational objectives and socio-economic targets.

9.6 The Many Applications of Social Media

Social media is a broad subject with many different applications ranging from information gathering to keeping in touch with friends and relatives, to sharing news with others. As social media evolves, more services will be created to meet the needs of niche groups.

The following sections highlight some of the recent developments in related technology and market trends.

9.6.1 Social casting

The proliferation of mobile phones, in particular, smartphones, places a convenient tool for broadcasting in the hands of individuals. "Social casting" is the use of lightweight, portable tools for the creation of scheduled and *ad hoc* live broadcasts.

Leveraging mobile data networks, social casting helps citizens and broadcasters alike to stream live videos while the action is happening.

- Professional news organisations use social casting either to cut costs in mobile broadcasts or to create live broadcasts in difficult-to-reach areas.
- Consumers use social casting to broadcast live video content from their mobile phones directly to other PCs, mobile phones or televisions for viewing and comments by specific family members, friends and fans.

Content is also posted at an Internet site in instances when the intended recipients are not available to view them "live," or when the content is for a large audience. In the 2011 Japan earthquake, footages taken by locals on their mobile phones were widely circulated by mainstream media in the reporting of the disaster.

²¹ Nick Cicero. How TED used social media to evolve from a single event into a global media brand. [Online] Available from: <http://socialfresh.com/ted-social-media/> [Accessed 9th July 2012].



Figure 5: Video captured the moment as residents fled their homes during the Japan earthquake

Social casting is also changing the recruitment of talent for TV casting. Hollywood agents are now using social casting to identify and sign up their new stars. Competitive auditions at TV studios are now complemented by aspirants loading their own videos on a social networking platform (e.g., YouTube) set up by TV agents and producers. Some casting directors find this social casting campaign simpler, more manageable and more effective than traditional casting for certain roles. In April 2012, producers invited aspiring “gleeks” (fans of the hit American TV show, “Glee”) to submit their videos on the Glee Auditions MySpace page for consideration for the next season of “Glee.” (“Glee” also actively uses social media, e.g., actors' tweets and YouTube previews, to build multi-platform viewership and generate greater awareness of their episodes.) Talent seekers are now launching formal social campaigns on social networking and talent-oriented sites.

Social casting, just like citizen journalism, emphasises the immediacy of the experience and the engagement of the audience as both producer and consumer of the content generated.

9.6.2 Citizen journalism

Increased access to mobile phones has led to a paradigm shift in the way news is reported. While mainstream news sources continue to be the official word on matters arising, user-generated reports from the public provide real-time, on-the-ground perspectives of events as they unfold. Coupled with the widespread use of social networks, citizen journalism can spread the word quickly and influence general opinion.

Citizen journalism takes place when citizens participate in the collection, reporting, analysis and transmission of information, in this case over social networking and media sharing sites such as YouTube and Facebook. This form of journalism embraces the concept of the citizen as an observer and commentator of history. During the 9/11 incident, many eye-witness accounts and images came from citizen journalists who recorded significant moments of the tragedy. Similarly, during the earthquakes which happened in Haiti, Christchurch and Japan, reports from citizens provided valuable information on the situation on the ground amidst the media blackout which occurred as a result of damaged communications infrastructure.



Figure 6: Crisis mappers used Google Maps and Ushahidi to map important earthquake locations^{22,23}

In countries with restricted press freedom and reporting, citizens play an important role in getting the information out to the world. The recent Arab Spring and Occupy movements clearly demonstrate the impact of such news reporting. The movements used social media as a tool to leverage mass support to overturn governments and create global awareness of local issues. The power, as they say, is in the hands of the people.

The most notable feature in citizen journalism is the real-time delivery of the news. The objectivity, quality and accuracy of citizen reports can be challenged but it should be noted that these same objections apply to mainstream journalistic reporting as well. Interestingly, some mainstream media channels are incorporating social media content into their main newsfeeds. Al Jazeera, for example, launched its social media-based programme, “The Stream,” in May 2011, taking off from its “Egyptian Tweets,” first aired after the Egyptian revolution. Today, Al Jazeera covers news in Egypt, relaying in Twitter updates on its dedicated Egypt channel. The “Egyptian Tweets” segment is also including video clips from citizen journalists to provide more insight from the streets.²⁴

Social media is empowering citizen journalism and has changed the landscape of journalism in several ways.²⁵ One outcome is that it is now easier to find people using crowdsourcing to help pinpoint or locate witnesses or key figures in a story. When an event is huge or just too massive to handle, journalists will find Tweets useful in chasing up stories. Collaborative reporting (reporting at site and using social media information and contacts) is also useful when incidents take place at sites where it is just not possible to get reporters there in time to get the news. Being on the ground is essential for any journalist, and citizens naturally have that distinct advantage.

In the end, what is important to remember is that citizen journalism adds to, and does not displace or supplant, traditional journalistic reporting.

9.6.3 Federated online identity

9.6.3.1 Emergence of competing social media platforms

²² Google Crisis Response. Resources related to the 2011 Japan Crisis. [Online] Available from: <http://www.google.com/crisisresponse/japanquake2011.html> [Accessed 9th July 2012].

²³ Sinsai info. Yamoto municipal ground near Miyagi Prefecture. [Online] Available from: http://www.sinsai.info/index.php/reports/view/14?l=en_US [Accessed 9th July 2012].

²⁴ Mohammad Al Abdallah. Al Jazeera expands social media, citizen journalism to news programs. [Online] Available from: <http://ijnet.org/blog/al-jazeera-expands-social-media-citizen-journalism-news-programs> [Accessed 9th July 2012].

²⁵ Paul Sawers. Two worlds collide: Twitter, the butterfly effect and the future of journalism. [Online] Available from: <http://thenextweb.com/media/2012/02/15/two-worlds-collide-twitter-the-butterfly-effect-and-the-future-of-journalism/> [Accessed 9th July 2012].

Despite the dominance of a few popular social networks, new social media channels continue to proliferate as the social media industry develops, providing greater choice to individuals. For example, Google+ was launched as a competitor to Facebook while Gowalla (since bought over by Facebook) was pitched against Foursquare.

However, this leads to social networking fatigue and as Gartner reported,²⁶ having too many social sites to manage is one of the reasons for the reduced use of social media sites. If users only need to create a single online profile and proliferate their preferred social networks using the profile, that would reduce the hassle of signing up and allow more time for meaningful interactions on these platforms. Currently, Facebook and Twitter have greatly eased the signing up process on a new platform but these social networking sites do not allow for a single federated (common and collective) identity across platforms.

9.6.3.2 Social standards and social data portability

Dion Hinchcliffe, a business strategist and industry analyst, has argued that as people increasingly use social networks as their key communication channels in both work and personal life, it is now timely to promote open social standards to allow for seamless integration between workflow and communication.²⁷ There are three key drivers for this move:

- Limited interoperability leads to silo-ed data and identities, limiting the reach and value of social networks.
- As enterprises look into adopting the app store model under Bring-Your-Own-Devices (BYOD) initiatives, data portability is required to ensure business continuity as new apps are launched and old ones depreciated.
- The industry is beginning to see the benefits of integrating social media communication and IT systems such as customer relationship management (CRM) and enterprise resource planning (ERP). Open standards could ease the integration process.

Hinchcliffe's concept of social business by design is summarised in the following diagram:

²⁶ Charlotte Patrick, et al. User Survey Analysis: Trends in Consumers' Use of Social Media. [Online] Available from: <http://www.gartner.com/DisplayDocument?ref=clientFriendlyUrl&id=1724424> [Accessed 9th July 2012].

²⁷ Dion Hinchcliffe. Enterprise Social Networks Need Open Standards. [Online] Available from: http://www.informationweek.com/thebrainyard/news/social_networking_private_platforms/240002166 [Accessed 9th July 2012].

USING THE OPEN STANDARDS OF THE SOCIAL WEB TO CREATE A MEANINGFULLY INTEGRATED WORK EXPERIENCE

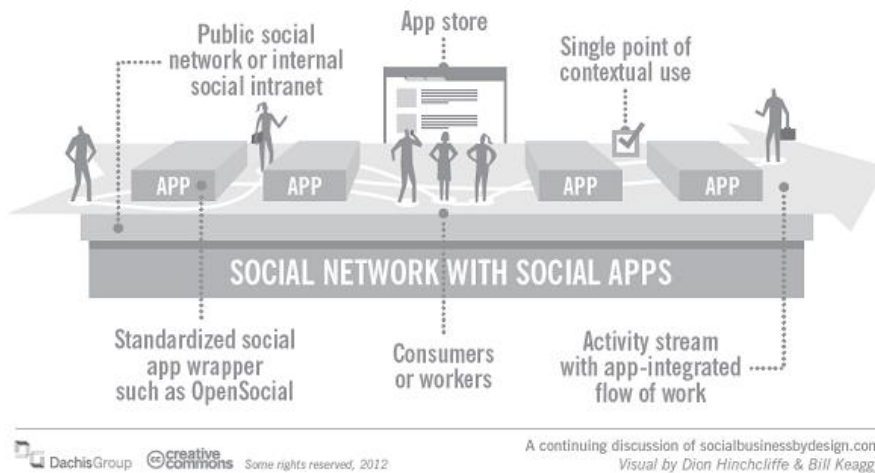


Figure 7: Social business by design requires open standards²⁸

Currently, various standards are in the process of development. These include OpenSocial, OpenID, OAuth which are closely related and are seen as complementary standards to allow for seamless identification on websites that accept these standards. OpenID serves to authenticate users by using one login to access multiple sites. OAuth is the authorisation mechanism that grants sites permission to access user accounts while OpenSocial is the set of Application Programming Interfaces (APIs) that interacts with the various social networks.

OpenSocial is particularly of interest to enterprise social software makers who aim to integrate traditional IT systems with social networks. With the release of OpenSocial 2.0 in August 2011, more features are available to deliver a more seamless user experience in which users can access their social networks directly from within another IT application. Led by Google, the standard currently enjoys support from companies such as IBM, SAP, Cisco Systems, Socialtext and Jive Software.

On the social front, Facebook's Open Graph demonstrates the kind of interaction which OpenSocial could enable in the enterprise space. Open Graph technology allows third-party websites to tell Facebook what people are doing. In other words, it allows for frictionless sharing in which Facebook user activities outside Facebook can be reflected in users' Facebook accounts and shared with their networks of friends and families. While Open Graph is not exactly an open standard, with more than 900 million monthly active users and the "Like" button found virtually on every website, the technology could become the *de facto* standard for social interactions on the Internet.

Industry analysts generally consider Open Social and Open Graph as competitors in the race to develop the standard for social media though the former is gaining traction in the enterprise space and the latter, outside of it. The technologies underlying the two standards are still developing and it is difficult to pinpoint, at this point in time, which one will win the race.

9.6.4 Social influence

²⁸ Dion Hinchcliffe. Enterprise Social Networks Need Open Standards. [Online] Available from: http://www.informationweek.com/thebrainyard/news/social_networking_private_platforms/240002166 [Accessed 9th July 2012].

9.6.4.1 The new social currency

As users grow their online presence, certain individuals stand out and gain a large following, particularly in the domains that they have the most interest in. These influencers enjoy a popularity which provides credibility and market worth on the content that they bring to the social networks. As an Altimeter report²⁹ defines it, influence is “the ability to cause effect, change behaviour, and drive measurable outcomes online.” With social media, social influence has become a social currency which marketers can leverage for marketing and advertising, or individuals can exploit for their own purposes.

According to David Armano, EVP at Edelman Digital (part of global communications firm Edelman), there is interest in the market to develop tools for the measurement of social influence and subsequently, for the monetisation of it.³⁰ This sentiment has also been echoed by Brian Solis, a principal at Altimeter Group, a research based advisory firm.³¹ More developments can be expected in this aspect of social media in the next two years.

9.6.4.2 Measuring social influence

There is no authoritative tool in the current market to measure social influence, though Klout (www.klout.com) and Kred (www.kred.com) are early movers in this domain and have attracted the attention of the online community.³² Different services have their own proprietary algorithms for calculating the influence scores of individuals but they generally derive the scores from the social networks individuals engage in. Twitter, in particular, is the main basis for calculation because of its public nature and the ease of tracking the reactions to individuals’ content on the social network.

Social influence is mainly determined by two factors: the level of authority in the domain and the reach of the individual. The former is gained as the individual invests in relevant domain topics and earns the respect of others; the latter depends on the relationship that the individual has with others in the network, and how far and wide the information can be transmitted. Solis suggested in a report³³ that a third element, resonance, could form another factor in the calculation. This refers to the time component which considers how long a conversation can stay alive in an individual's social streams, which in turn, determines how many more people can see this information.

Klout calculates the influence score based on the social networks that the individual users are engaged in, namely Facebook, Twitter, Google+, LinkedIn and Foursquare. The users’ actions on these platforms are tracked and Klout gives a score accordingly to their true reach (number of people influenced) and amplification probability (how much the user influenced others). It also determines the network impact which measures the influence of the users’ network as a whole. In addition, it profiles the users and determines the domains in which they are influential in. Klout then awards Perks to influencers, from companies interested in marketing their products through them, based on their authoritative domains.

Kred,³⁴ with a comparatively more straightforward calculation than Klout, is based mainly on Twitter. It

²⁹ Brian Solis. Report: The Rise of Digital Influence and How to Measure It. [Online] Available from: <http://www.briansolis.com/2012/03/report-the-rise-of-digital-influence/> [Accessed 9th July 2012].

³⁰ David Armano. Six Social Media Trends for 2012. [Online] Available from: http://blogs.hbr.org/cs/2011/12/six_social_media_trends_for_20.html [Accessed 9th July 2012].

³¹ Brian Solis. 5 Trends That Will Change CRM. [Online] Available from: <http://www.briansolis.com/2012/01/5-trends-that-will-change-crm/> [Accessed 9th July 2012].

³² Douglas Crets. In Web Space, They Can’t Hear You Scream, But They Can Listen to You Convince. [Online] Available from: <http://2012.pivotcon.com/in-web-space-they-cant-hear-you-scream-but-they-can-listen-to-you-convince/> [Accessed 9th July 2012].

³³ Brian Solis. The Rise of Digital Influence: A “How-To” Guide for Businesses. [Online] Available from: <http://www.altimetergroup.com/research/reports/the-rise-of-digital-influence> [Accessed 9th July 2012].

³⁴ Devon Glenn. Would You Rather Have Klout... or Kred? [Online] Available from: <http://socialtimes.com/you-may-have-some->

focuses on two aspects of the user: influence and outreach. The former measures how people react to the user's Twitter feeds (through retweets and follows) and the latter scores the user's responses to other users on Twitter (through retweeting their post or following them on Twitter). Kred also awards points for interactions on Facebook if the users connect their accounts to Kred. An interesting aspect of Kred is that users can highlight their offline activities, e.g., volunteering to gain Kreds. Another way of increasing the Kred score is through a gifting mechanism called Plus Kred which encourages users to give points to people who inspire them.



Figure 8: Different tools to measure social influence

9.6.4.3 Influence score alone does not dictate the engagement strategy

While the scores do give an indication of how influential a person is, brands and organisations should not place emphasis solely on the scores and think that simply by marketing to these influencers, the desired outcome would be achieved. Instead, focus should be placed on how to develop the relationships with this group of connected customers and arrive at a mutually beneficial arrangement to deliver the expected results.

9.6.5 Social media management systems

Social media places control in the hands of the individual. Conversations go on with or without an organisation's participation or permission, often on a multitude of social media channels which makes it a challenge to monitor and engage the individuals. Typically, limited resources are allocated to social media engagement and with new social media channels sprouting every few months, it becomes increasingly difficult to listen to all the conversations that are ongoing on the Internet.

As organisations realise that they need to engage their stakeholders on social media, they start to create profiles on the various channels. In larger organisations, this can lead to many disparate social media profiles as different departments create their own profile to reflect their departments' objectives. This dilutes the customer experience and may affect the stakeholder's perception of the organisation.

To meet the need to monitor chatter across different social media channels and coordinate the engagement on these platforms, companies offering social media management services are emerging on the IT scene to aggregate the social media traffic. Social Media Management Systems (SMMS) empower social media teams to manage the traffic from one location, generating the opportunity to build deeper relationships by being in more places at any one time. Besides aggregating the online conversations on a single interface, such systems are also used to manage the social media workflow in which the community manager responds to the online community.

[klout-but-do-you-have-kred b87707](#) [Accessed 9th July 2012].

SMMS filter information from the Internet using keywords or key phrases to present relevant content to users. These typically include the names of organisations, brands and their competitors, and specialised services that the organisation provides or keywords related to campaigns. Periodic reporting highlights the ongoing conversations on the Internet. On some platforms, analytics provides further insight on the behaviour of stakeholders which helps the organisations better engage them.

Currently, there are at least 30 vendors in the SMMS space, each with its own set of features and functionalities. Most of the platforms track “open” platforms such as Twitter, blogs, forums, as well as public sections of Facebook. Radian6 appears to be the most popular at the moment; its strengths are in monitoring and analytics. Other platforms such as CoTweet, HootSuite, Seismic and Wildfire Interactive help brands engage their stakeholders through their interactive dashboards.



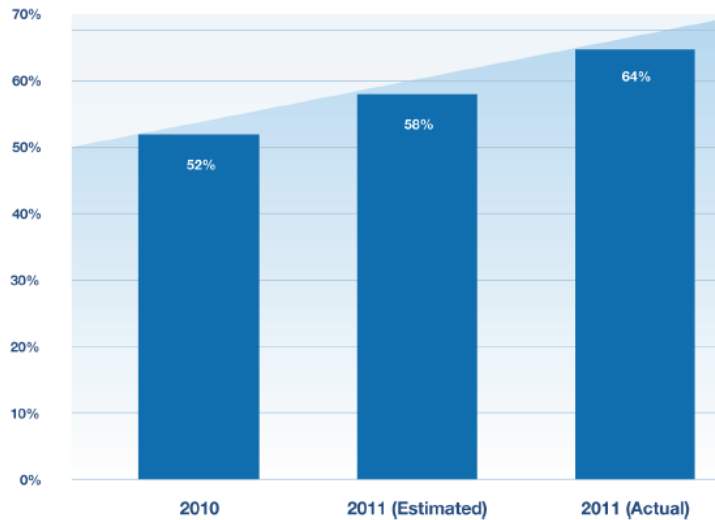
Figure 9: Example of a social media monitoring dashboard

It is important to note that there is no single solution to meet any organisation’s every need. To a certain extent, SMMS are complementary in that some will specialise in certain platforms or in certain functionalities, e.g., monitoring and analytics. Organisations need to first identify their objectives and formulate their engagement strategy before selecting the appropriate platform for their purpose. Factors to consider include the purpose of adopting SMMS (listening or engagement, etc.), platforms where the organisations have a presence, the resources available to manage the conversations and the budget available to adopt SMMS.

A report³⁵ published by the Altimeter Group highlighted the main issues associated with *ad hoc* silo-ed social media engagements as companies adopt various platforms haphazardly. There usually is a lack of clear goals and strategy and it becomes difficult to manage the disparate presences on different platforms. More importantly, the companies fail to provide a coordinated user experience which runs counter-intuitive to the purpose of engaging stakeholders on social media in the first place. As such, it is not surprising that among the companies surveyed, there is an increased adoption rate for SMMS.

³⁵ Jeremiah Owyang. Buyers Guide: A Strategy for Managing Social Media Proliferation (Altimeter Report). [Online] Available from: <http://www.web-strategist.com/blog/2012/01/05/buyers-guide-a-strategy-for-managing-social-media-proliferation-altimeter-report/> [Accessed 9th July 2012].

Figure 5. SMMS Adoption Is Growing Rapidly – Even Outpacing Predictions



Base: 2010, 2011 (Estimated): 140 global corporate social media program managers at companies with over 1000 employees (Q4 2010). 2011 (Actual): 144 global corporate social media program managers at companies with over 1000 employees (Q2 2011)

Source: Altimeter Group

Figure 10: Increase in SMMS adoption rate³⁶

With proper use of SMMS, organisations could greatly improve the customer experience through improved response rates, increased engagement with stakeholders and more effective sentiment management on the Internet. Radian6³⁷ recently published a set of guidelines on social media monitoring, highlighting the scenarios in which social media monitoring can help organisations. These include:

- Gauging stakeholders' sentiments on the Internet;
- Responding quickly to customer service issues to give a better customer experience;
- Managing a crisis before it becomes too difficult to handle;
- Generating leads;
- Keeping track of competitors;
- Collecting feedback about the organisation's services and products;
- Tracking industry trends;
- Identifying the influencers amongst the stakeholders and engaging them to promote the organisation.

Constant engagement with stakeholders provides the organisation with a social profile of each individual. This allows the organisation to populate a social CRM to derive more insights on user behaviour, and deliver more relevant and targeted content.

9.6.6 Reputation management

The Internet has opened up multiple channels through which people can seek opinions on goods and services that they are buying from the social networks. The same applies to opinions people form of brands and organisations as they search on the Internet. This leaves the reputation of an organisation mainly in the

³⁶ Jeremiah Owyang. Buyers Guide: A Strategy for Managing Social Media Proliferation (Altimeter Report). [Online] Available from: <http://www.web-strategist.com/blog/2012/01/05/buyers-guide-a-strategy-for-managing-social-media-proliferation-altimeter-report/> [Accessed 9th July 2012].

³⁷ Salesforce. The Guide to Social Media Monitoring. [Online] Available from: http://www.radian6.com/wp-content/uploads/2012/05/ebook_SocialListeningGuide_SalesforceRadian6.pdf [Accessed 9th July 2012].

hands of individuals. Coupled with the amplification effect of social media, negative online sentiments could quickly lead to public relations (PR) nightmares for the brands and organisations. As such, it is pertinent that steps be taken to manage online reputation before a misinformed opinion escalates into a persistent blot which could prove difficult to remove. This is because people constantly access the same information through the search engines and there is something called a “grapevine,” even on the Internet.

There are a few factors that create the need for reputation management. Firstly, increased digitisation of information and increased access to the Internet mean it is now harder to control the spread of news. With more than 2 billion Internet users worldwide,³⁸ the Internet has many more pairs of eyes observing and analysing the content that brands and organisations release online. This calls for a higher level of transparency and accountability by the brands and organisations to ensure that reputation is kept intact. An example of a failure to do so is the situation that arose around Dan Rather of the “Rathergate” fame. In 2004, the former CBS Evening News anchor reported a series of memos critical of the National Service records of then US President George W Bush. After the memos were made available online, communities, acting like digital forensic experts, exposed the potential fraud behind the memos. This led to the dismissal of staff involved in the story; Rather was believed to have been forced into retirement as a result of this incident.

Secondly, news spreads at a very fast rate - almost like “wildfire” - across the Internet. For bad news, this is particularly damaging as people will form opinions of brands or organisations even before the latter have an opportunity to clarify. These viral crises are partially created by vibrant online communities such as Twitter and Facebook, and ubiquitous connectivity through the mobile Internet. In particular, microblogging platforms such as Twitter are considered by some to be the main source of real-time, though unauthenticated, news.

The most cited early example of social media leapfrogging mainstream media was the emergency landing of U.S. Airways 1549 into the Hudson River in New York. The first tweet came two minutes after the landing, sent by someone on a ferry heading out to rescue the survivors. By the time the airline released a press release 50 minutes later, Google was already showing more than 400 links to sites with online coverage. A more recent local example is the incident in which a Qantas A380 flying from Singapore to Australia had engine failure and had to return to Singapore. The social media sites were flooded with wrongly reported news of a crash. These incidents highlight the need for a crisis management plan to protect the reputation of the brands and organisations when such cases happen.³⁹ Rumour mongering online, as in real life, can be hard to contain and manage.

Thirdly, the openness of the Internet means full disclosure and consistency of image essential to reputation management. People nowadays not only have access to a large amount of information but also tend to access the same information turned up by the search engines. Different or contradicting messaging would be easily discovered by Internet users, particularly by self-appointed vigilantes uncovering such inconsistencies.

The most direct way to manage online reputation is to engage reputation management firms to enhance the brands or organisations’ image on the Internet. The typical *modus operandi* involves using search engine optimisation (SEO) to push positive stories about the company into the search results and suppressing the negative stories. The firms could also help to create positive content and have them listed on the first page of the search results, thereby relegating negative content to the second page or later. It is noted that people typically do not go beyond the first couple of pages in their online searches so this would reduce the likelihood that people will access the negative content. Reputation.com is the most prominent player in this

³⁸ Miniwatts Marketing Group. Internet World Stats. [Online] Available from: <http://www.internetworldstats.com/stats.htm> [Accessed 9th July 2012].

³⁹ International Air Transport Association. Social Media – Instant Message. [Online] Available from: <http://www.iata.org/pressroom/airlines-international/february-2011/pages/social-media.aspx> [Accessed 9th July 2012].

domain but there are dozens of companies in the market such as Reputation Changer and Netmark.⁴⁰ Local players include Media Monitors and JamiQ.⁴¹

However, Gartner⁴² recommends proactive engagement with the critics on the Internet as a form of reputation management. This not only addresses the comments by critics but also builds reputation equity as well. Burson-Marsteller, a global public relations and communications firm, provides some guidelines in its research report⁴³ on managing corporate reputation:

- Listen – Understand what influences the reputation of the organisation and what stakeholders think about the organisation. Listen to feedback and act on it.
- Be genuine – Align the organisation’s objectives with those of the stakeholders. Show commitment to decisions.
- Engage openly – Proactively engage stakeholders and encourage open feedback.
- Lift the veil – Be open about policies and activities, both with internal staff and external stakeholders.
- Prepare globally – Understand local and global online communities, and be in a position to respond effectively on a global scale. Establish a governance structure to govern the organisation’s participation on various social media channels.
- Connect the dots – Look beyond the government, industry and media to include non-government organisations (NGOs) and bloggers in stakeholder management.

9.6.7 Social media analytics

For brands and organisations which started their community engagement on the various social media channels, the content on these platforms present a rich trove of information from which intelligence, trends and patterns can be derived. Analytics will provide a deeper insight on stakeholders and assist management in decision making, as well as the delivery of more targeted and personalised content and services to these stakeholders. Metrics would also help address (in part if not totally) the Return on Investment (ROI) issues that community managers driving social media initiatives typically face when confronted by senior management.

Social media analytics is part of social analytics. Gartner⁴⁴ defines social analytics as the process of collecting, measuring, analysing and interpreting the results of interactions and associations among people, topics and ideas. These interactions may occur on social software applications used in the workplace, in internally or externally facing communities, or on the online social networks. Other specialised analysis techniques include social filtering, social network analysis and sentiment analysis.

According to research conducted in late 2010 and early 2011 by the Altimeter Group, 82% of corporations expect to have a brand monitoring solution in place this year, while 48% reported that their primary internal focus was to develop ROI measurements for social media.⁴⁵ While social media monitoring has become

⁴⁰ TopSEOs. Top 10 Reputation Management Companies. [Online] Available from: <http://www.topseos.com/rankings-of-best-reputation-management-companies> [Accessed 9th July 2012].

⁴¹ “TopSEOs. Top 10 Reputation Management Companies. [Online] Available from: <http://www.topseos.sg/rankings-of-best-reputation-management-companies-in-singapore> [Accessed 9th July 2012].

⁴² French Caldwell. Hype Cycle for Legal and Regulatory Information Governance, 2011. [Online] Available from: <http://www.gartner.com/id=1752523> [Accessed 9th July 2012].

⁴³ Burson-Marsteller. Managing Corporate Reputation in the Digital Age. [Online] Available from: <http://www.slideshare.net/bmasia/managing-corporate-reputation-in-the-digital-age-10463171> [Accessed 9th July 2012].

⁴⁴ Gartner. Gartner’s 2011 Hype Cycle Special Report Evaluates the Maturity of 1,900 Technologies. [Online] Available from: <http://www.gartner.com/it/page.jsp?id=1763814> [Accessed 9th July 2012].

⁴⁵ Jeremiah Owyang. How Corporations Should Prioritize Social Business Budgets. [Online] Available from: <http://www.web-strategist.com/blog/2011/02/10/spend-wisely-finally-an-investment-roadmap-for-social-business-buyers-altimeter-report/> [Accessed 9th July 2012].

mainstream, companies still struggle with how to measure, analyse and act on social data and insights. However, research conducted by Harvard Business Review, in collaboration with SAS, has indicated that people are realising the importance of social media analytics and intend to invest more in analytical activities over the next two to three years.

Analytics Usage: Current vs. Future Intentions FIGURE 13

QUESTION 1: Which of the following social media analytic activities do you currently do? (Check all that apply)

QUESTION 2: Which of the following social media analytic activities do you plan on doing in the next two to three years? (Check all that apply)

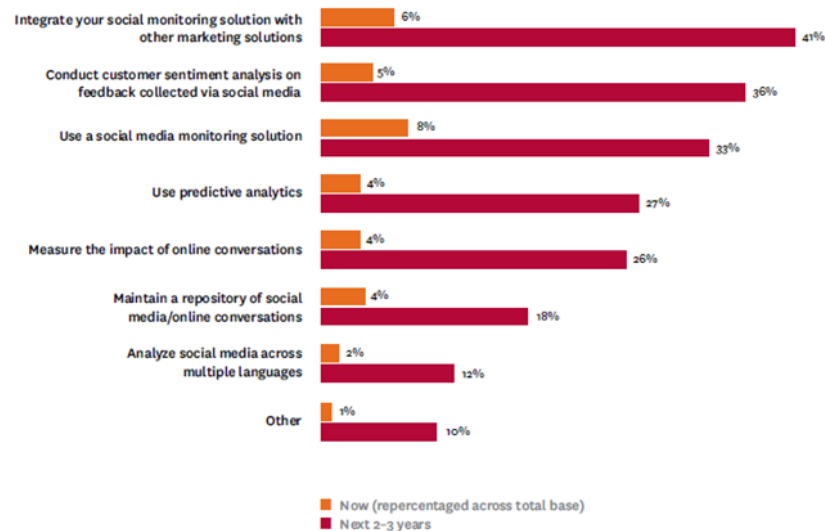


Figure 11: Use of social media analytics likely to increase in the next two to three years⁴⁶

One key consideration for social analytics is to determine the metrics to measure the social media interactions on the various channels. There are multiple ways to measure and there is no single metric that will provide all the insights needed. The selection depends heavily on the purpose of the measurement, e.g., marketing, sales or customer service. Quantitative measurements such as the number of fans on Facebook, followers on Twitter, and photos and videos posted can be easily obtained from the platforms but qualitative measurements like community sentiments or affinity with the brand or organisation would require deeper thought. For a sample of social media metrics, Awareness, a social media marketing software maker, highlighted some examples in their report:⁴⁷

⁴⁶ Harvard Business Review Analytic Services. The New Conversation: Taking Social Media from Talk to Action. [Online] Available from: http://www.sas.com/resources/whitepaper/wp_23348.pdf [Accessed 9th July 2012].

⁴⁷ Awareness. Actionable Social Analytics. [Online] Available from: <http://info.awarenessnetworks.com/rs/awarenessnetworks/images/Actionable-Social-Analytics.pdf> [Accessed 9th July 2012].

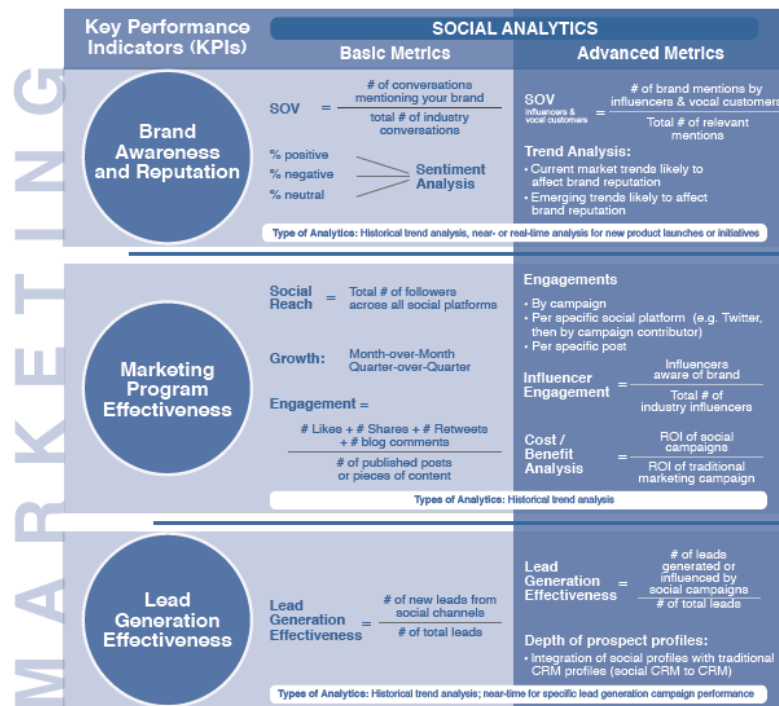


Figure 12: Examples of social media metrics⁴⁸

Social analytics starts with the business/organisational objectives in mind. Understanding the objectives would help determine the social media strategies deployed and the metrics measured. Prior to rolling out the social media measurement initiatives though, an audit of the brand or organisation’s readiness to undertake the projects is critical to success. Importantly, technology selection enters the picture after the other factors are considered so as to ensure that the most appropriate tools are chosen to deliver the expected metrics and outcome of the social analytics project. In its report on social analytics,⁴⁹ the Altimeter group highlighted this social media measurement framework (see the following diagram).

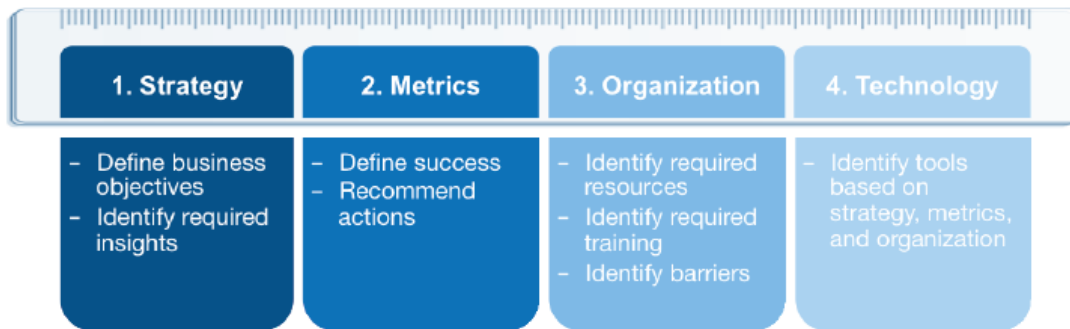


Figure 13: Social media measurement starts with the business objectives in mind⁵⁰

Social analytics is still in the infancy stage, and issues such as varying data sources and lack of a definitive set of metrics for social media need to be resolved/standardised before it is likely to become an essential part of business planning. Given the rapidly changing social media landscape, it may take a while for this to be realised.

⁴⁸ Awareness. Actionable Social Analytics. [Online] Available from: <http://info.awarenessnetworks.com/rs/awarenessnetworks/images/Actionable-Social-Analytics.pdf> [Accessed 9th July 2012].
⁴⁹ Altimeter. A Framework for Social Analytics. [Online] Available from: <http://www.altimetergroup.com/research/reports/a-framework-for-social-analytics> [Accessed 9th July 2012].
⁵⁰ Altimeter. A Framework for Social Analytics. [Online] Available from: <http://www.altimetergroup.com/research/reports/a-framework-for-social-analytics> [Accessed 9th July 2012].

9.6.8 Social media marketing

With the prolific use of social media, businesses are turning toward social media advertising to build their brand awareness and improve the ROI of their advertising dollar. Non-profit organisations and government agencies are also increasingly tapping on various social media marketing channels for their campaigns and causes. For more experienced social media marketers, use of social media analytics provides more insights into the target audience which further helps the brands and organisations better tailor their products and/or services.

As an indication of the importance of social media marketing, senior management is increasingly involved in companywide social media strategies. A report from Booz & Company and Buddy Media reveals that 1/3 of company managers are thus engaged and 38% of survey respondents stated that social media is on the CEO's agenda.⁵¹ The same report also noted that social media marketing will take up a higher share of digital marketing in the next few years.

Marketers report that social media spend will increase significantly as a percentage of digital spend in the next three years

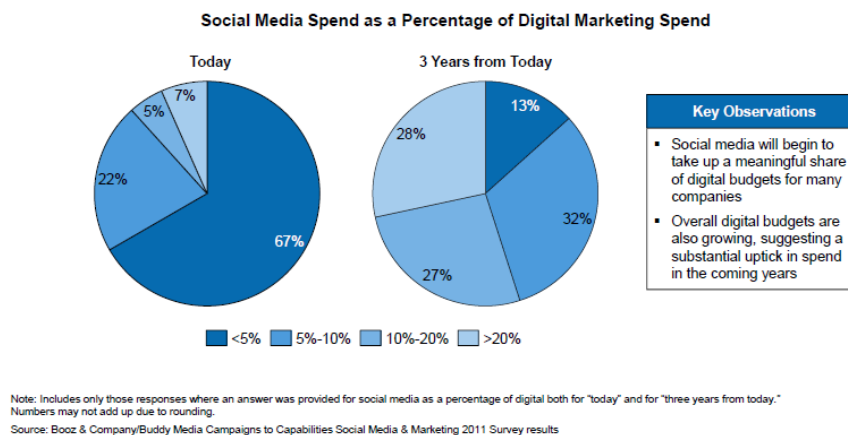


Figure 14: Social media marketing will take up a larger portion of future digital marketing⁵¹

Social media marketing is also a key contributor to social media revenue. Gartner's report on social media revenue stated that social media advertising revenue will increase from US\$11.83 billion in 2011 to US\$33.5 billion in 2016.⁵² This echoed a report from eMarketer which predicted that the social media advertising revenue will hit US\$9.99 billion in 2013, up from US\$5.54 billion in 2011.⁵³

⁵¹ Booz & Co. Campaigns to Capabilities: Social Media & Marketing 2011. [Online] Available from: <http://www.booz.com/media/file/BoozCo-Campaigns-to-Capabilities-Social-Media-and-Marketing-2011.pdf> [Accessed 9th July 2012].

⁵² Neha Gupta. Forecast: Social Media Revenue, Worldwide, 2011-2016. [Online] Available from: <http://www.gartner.com/DisplayDocument?ref=clientFriendlyUrl&id=2061016> [Accessed 9th July 2012].

⁵³ eMarketer. Social Network Ad Revenues to Reach \$10 Billion Worldwide in 2013. [Online] Available from: <http://www.emarketer.com/PressRelease.aspx?R=1008629> [Accessed 9th July 2012].

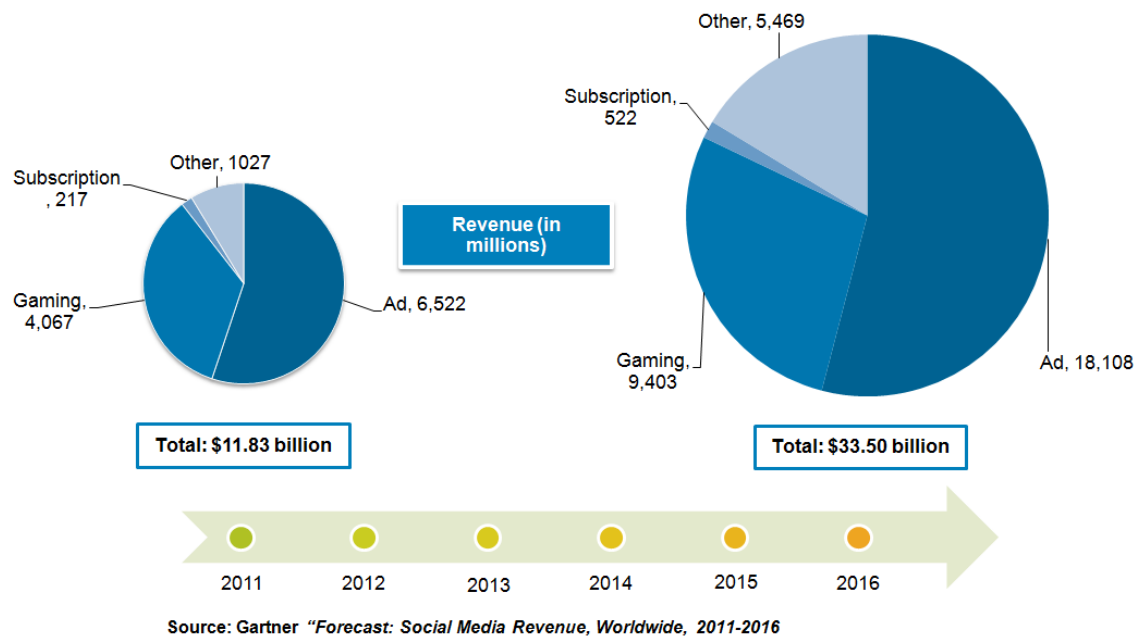


Figure 15: Social media marketing is on the rise⁵⁴

The trend toward social media advertising means advertising budgets will be drawn from traditional advertising channels to leverage the popularity of social networks such as Facebook, Twitter and YouTube to drive brand awareness.

For organisations just starting on social media marketing, one of the key challenges in adopting social media marketing is the lack of resources. Despite the increased focus in this area of marketing, marketers may face difficulty in securing sufficient budgets to carry out their marketing efforts. In separate surveys carried out by Awareness⁵⁵ and Buddy Media,⁵⁶ participants reflected that they have to rely mainly on people resources which may not be the most efficient way to spread the word on social media channels. Leveraging the tools mentioned in the previous sections will greatly complement the marketing efforts and maximise the reach of the marketers. As the survey results showed, experienced social media marketers are planning more investment in SMMS to manage the interaction on social media platforms.

One of the biggest hurdles that social media marketers have to overcome is to convince senior management of the ROI of social media marketing. This has led to a situation where marketers are asking for more support for social media marketing but senior management wants to see the ROI before putting in more resources. As such, it is not surprising that one of the top priorities of social media marketers is to measure the returns of their efforts in a tangible, disciplined manner.

Just like social analytics, there is no clear, definitive metric to determine the ROI for social media marketing. The most appropriate ROI indicators are dependent on the business objectives and should support the organisation's social media strategy. Awareness⁵⁷ highlighted some of the metrics which organisations can

⁵⁴ Neha Gupta. Forecast: Social Media Revenue, Worldwide, 2011-2016. [Online] Available from: <http://www.gartner.com/DisplayDocument?ref=clientFriendlyUrl&id=2061016> [Accessed 9th July 2012].

⁵⁵ Awareness. New Industry Report: State of Social Media Marketing From Awareness, Inc. [Online] Available from: <http://www.awarenessnetworks.com/news-and-events/press-releases/State-of-Social-Media-Marketing-Industry-Report> [Accessed 9th July 2012].

⁵⁶ Salesforce. Buddy Media Announces New Asia-Pacific Research; Social Media Spending will Rise in Next Two Years. [Online] Available from: <http://www.buddymedia.com/newsroom/2012/06/buddy-media-asia-pacific-social-media-marketing-survey-statistics-adtech/> [Accessed 9th July 2012].

⁵⁷ Awareness. The Top 9 Social Media Metrics Marketers Need to Know. [Online] Available from: <http://info.awarenessnetworks.com/Social-Media-Metrics.html> [Accessed 9th July 2012].

consider when presenting their social media marketing plans to their management:

- Brand sentiment: Positive and negative mentions of organisation or its high-profile employees;
- Reach and relevance: Subscribers to Facebook, Twitter, YouTube, etc.;
- Interactions: Actions taken by subscribers on the various social media channels, e.g., retweeting on Twitter, commenting, likes on Facebook;
- Activity ratio: Proportion of active members within each social network;
- Inbound links: Number of connections back to one or more of the social networks;
- Influence: Ability to cause actions and outcomes;
- Engagement: Actions by the organisation to engage its community, e.g., commenting on the various social networks;
- Conversions: Number of people who become qualified leads;
- Customer satisfaction: Response rate to queries on social networks like Twitter and Facebook.

Compared to current forms of marketing, social media marketing may not be able to clearly demonstrate its effectiveness. However, in the current social media landscape, it is an important avenue to reach out to potential stakeholders on the Internet, in particular, the younger generation who have grown up using social media. Investing sufficient resources in social media marketing would help organisations build strong social media presences for future engagement.

9.6.9 Infocomm Technology Roadmap for Social Media

This report does not attempt to include all the technologies related to social media. Instead it highlights those that would have a greater and more significant impact in the next three to five years. Beside those mentioned above, the following diagram shows other relevant technologies (as captured by the roadmapping team’s research, industry and research firms’ consultancy inputs).

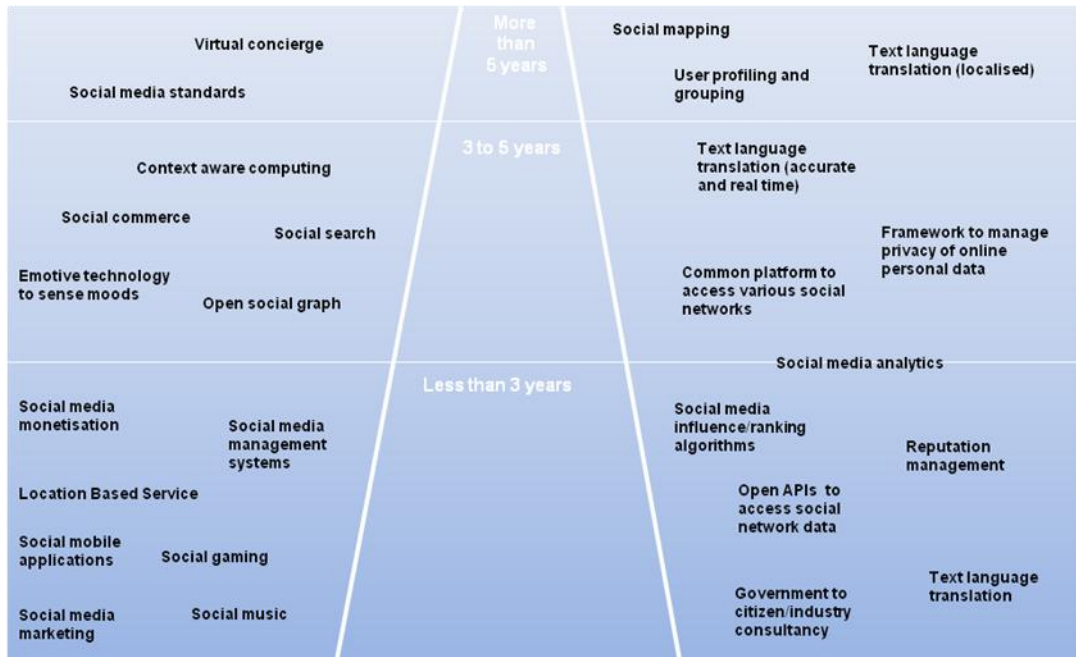


Figure 16: Infocomm Technology Roadmap for Social Media

Many of the technologies highlighted in the roadmap are available today, or are likely to gain traction over the next three to five years. In the longer term, the research focus is stronger, particularly in the areas of social graphing, sentiment analysis and natural language processing.

9.7 The Next Big Thing - Context-aware Computing

As boundaries blur between the virtual and real worlds, context-aware computing could be the next big thing. The convergence of personal social networks, commercial social media advertising and mobile connectivity will significantly re-define the user experience. According to William Clark, research vice president at Gartner, "the disruptions caused by context-aware computing will include major user, technology and business shifts, including the use of model-driven security in fraud detection and prevention, convergence in television, game, Web and mobile advertising, and new styles of application programming. The advanced use of personal information in customizing user experiences will result in the interest of governments in regulating contextual information access and control."⁵⁸

Gartner estimates that by 2015, 10% of the global population would opt in to be tracked by context service providers who will then deliver personalised information and deals based on the user's personality, social circles and location. This presents a large market for financial service providers, consumer goods companies and retailers.

In Accenture's latest "Technology Vision", context-aware computing was also highlighted as one of the major technology trends to watch out for in 2012. While Accenture acknowledged that the technology is still in its infancy, businesses should re-look their business processes to deliver rich context-based experiences to their customers. The report further recommended different skill sets that are essential to help the businesses leverage this emerging trend. These include:

- a focus on user interface design;
- the ability to mix traditional IT and creative implementations of IT;
- flexibility to experiment with new approaches.

Context-aware computing took a step forward recently with the emergence of ambient location mobile applications. At the annual South-by-Southwest (SXSW) Festival held in Austin, Texas in March 2012, where emerging technologies and the latest developments in social media are revealed, such applications were the highlights of the event.⁵⁹ The mobile applications ran in the background, on users' mobile phones, making recommendations of people that the users might like to meet. Highlight, Banjo, Sonar and Gancee (since bought by Facebook) are some of these mobile applications which took centre stage at the event. These apps derive information from the users' Facebook, Twitter, LinkedIn or Foursquare profiles and match users' social graphs before making recommendations. Unfortunately, technical constraints such as battery drain (resulting from applications running in the background constantly) have limited the effectiveness of these mobile apps. Nevertheless, they herald a new generation of mobile apps which could change the social networking experience in the future.

⁵⁸ Gartner. Gartner Says Context-Aware Technologies Will Affect \$96 Billion of Annual Consumer Spending Worldwide by 2015. [Online] Available from: <http://www.gartner.com/it/page.jsp?id=1827614> [Accessed 9th July 2012].

⁵⁹ Sarah Perez. All The Location Apps You Have To Use At The SXSW Royal Rumble. [Online] Available from: <http://techcrunch.com/2012/03/06/all-the-location-apps-you-have-to-use-at-the-sxsw-royal-rumble/> [Accessed 9th July 2012].

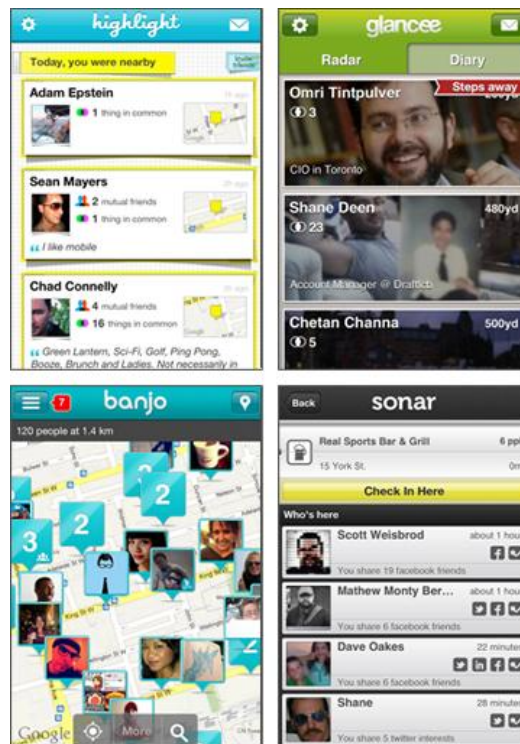


Figure 17: Ambient location apps recommend people in your vicinity to meet up

Context-aware computing enables the convergence of different technologies in the delivery of real-time information in/from the physical, digital, virtual, mobile and social worlds. The goal of context-aware computing is to let systems react to users based on their environments. Business processes such as sales, inventory, scheduling and purchasing can be improved by the consolidation of information pertaining to location, identity, activity and time. Overall, context-aware devices will have to use a combination of “hard-sensing,” or raw physical data about a user (e.g., location), and “soft-sensing” information about the user, such as preferences and social networks, to anticipate needs and make recommendations.⁶⁰ This creates the cognitive framework for managing context. Smartphones are well-tailored to deliver context-aware computing services because they can bring together multiple data streams and communication history. Overall, this capability provides a more personalised and intuitive user experience for consumers.

The challenges in context-aware computing relate to costs and complexity. As information is gathered from different sources, it becomes necessary to convert the different data formats to enable convergence. Data access and integration could be an issue. Context, however, could be the unique differentiator for software and handset vendors, and mobile network operators.

⁶⁰ Priya Ganapathi. How Context-aware Computing Will Make Gadgets Smarter. [Online] Available from: <http://www.wired.com/gadgetlab/2010/09/context-aware-computing/> [Accessed 9th July 2012].

9.8 Social Media Creates Opportunities for Enhanced Engagement

The social media landscape can get quite crowded so it is important to be able to distinguish what is of value from mere hype. Metrics and measurement will help establish the functionality and usefulness of social media as a marketing and reputation management tool. Human resource departments can use social media to locate talent and contextualise individual environments so as to create more relevant corporate resource allocation policy and employee benefit schemes. Governments can use social media to engage the citizens, solicit feedback on policy proposals, transmit new policies and promote their political agendas. Social media can be used by individuals for whistle blowing and sharing of information that might not be reported by national media channels. All these opportunities are possible, based on the assumption that every citizen has a computer (or smartphone) and digital access.

The topics discussed herein have provided a view of how social media could help brands and organisations enhance the relationship with stakeholders. Many of these opportunities exist today and it would be beneficial for brands and organisations to start building up the social equity now, in order to draw on the strength of the community in the future to drive awareness and garner support.

Opportunities	Less than 3 years	3 to 5 years
Social Influence	Build up an influential online presence to gain social capital and identify influencers	Engage influencers as an expansion force beyond the organisation
Social Media Monitoring	Explore and adopt suitable platforms which meet organisational objectives	Streamline the engagement mechanism to engage target audience actively and efficiently
Reputation Management	Create a positive online reputation through firms or stakeholder engagement	Leverage reputation equity to further build brand awareness
Social Analytics	Match organisation's objectives to relevant social media metrics to derive useful information	Predict trends based on analyses of collected information
Social Media Marketing	Leverage social media to drive awareness	Channel advertising to specific target audience for maximum impact
Context-Aware Computing	Explore new business models which can leverage the technology	Deliver personalised user experience to target audience

Table 1: Opportunities for use of social media for engagement

9.9 Implications

Every status update and every check-in to a location reveals a bit more about the regular social media user. As people share more about their routines and habits on social networking sites, the issue of privacy

inevitably becomes a key discussion point. The biggest concern is the potential misuse of personal information for the purpose of stalking, identity theft, etc. The majority of users without appropriate security settings or those who are less vigilant about what they share on social networks risk other people easily gaining access to their publicly available information.

Not long after Foursquare, a location-based social network where users check in to a location, was launched, a simple mashup "Please Rob Me" identified users who were not at home, based on their check-in information.⁶¹ While not malicious in intent, it did highlight the potential danger of over-sharing online. A more recent controversial example of an iPhone mobile application, "Girls Around Me," reveals the alarming amount of information that one can obtain about a stranger with a public Facebook profile using Foursquare to check in to a location.⁶²



Figure 18: "Girls Around Me" shows female users in the vicinity

To address the privacy issues, the concept of "privacy by design" is garnering more attention as one key consideration in the development of products and services. Simply put, the concept considers consumers' privacy as the top priority and pushes for privacy mechanisms to be built into products and services themselves rather than relying on compliance with regulatory frameworks.

Dr Ann Cavoukian, (Information & Privacy Commissioner, Ontario, Canada), is recognised as the founder of the "privacy by design" concept. She proposes several foundational principles to perpetuate this concept.⁶³ The principles strongly support the idea that security measures should be built in at each stage of the system development from the start to the end while keeping the system open, transparent and user-centric.

Social media is a double-edged weapon. When correctly utilised, the viral effect could greatly complement

⁶¹ Dan Fletcher. Please Rob Me: The Risks of Online Oversharing. [Online] Available from: <http://www.time.com/time/business/article/0,8599,1964873,00.html> [Accessed 9th July 2012].

⁶² PC World. Online Oversharing Can be Dangerous. [Online] Available from: http://www.pcworld.com/article/252973/online_oversharing_can_be_dangerous.html [Accessed 9th July 2012].

⁶³ Ann Cavoukian. Privacy by Design. [Online] Available from: <http://www.privacybydesign.ca/content/uploads/2009/08/7foundationalprinciples.pdf> [Accessed 9th July 2012].

the communication efforts of the organisation. However, it also means that negative sentiments about the organisation could spread just as easily. Examples of backlash resulting from organisations deleting unpleasant comments on Facebook instead of engaging the community abound. Thus, even before jumping on the social media bandwagon, organisations should have the appropriate guidelines and workflows in place to ensure that they engage the community in an intelligent, coherent and consistent manner. Companies such as Best Buy, Dell, Intel, IBM and even non-profit organisations like The American Red Cross have established social media guidelines to help their staff in their social media engagements with the community. Governments, such as the government of New Zealand, have likewise released social media guidelines.⁶⁴

These guidelines are not cast in stone. Organisations need to adjust their social media strategies accordingly as new social networks emerge and others die off. This implies resources should be allocated to keep track of the developments in the social media scene so that organisations would continue to engage their stakeholders in a relevant manner.

⁶⁴ The New Zealand Department of Internal Affairs. Social Media in Government. [Online] Available from: <http://webstandards.govt.nz/assets/Social-Media-in-Government-High-level-Guidance-final.pdf> [Accessed 9th July 2012].

9.10 Conclusion

We can expect social media to continue evolving but it is difficult to predict what the next popular platform or technology will be and how we can tap on it for brand building or reputation management. As such, rather than jumping on the next social media flavour of the month, it is more important that the organisation has a social media strategy in place before selecting the right tool available at the right time to achieve the greatest strategic impact.

For a social media strategy to be effective, organisations need to define objectives, identify the social networks where their stakeholders are most active, understand online behaviour and engage their stakeholders in a manner which is appealing and sustainable. Throughout this process, it is important to have a clear framework to measure the right things, interpret social data effectively, extract relevant insights, and take timely and appropriate actions to meet stakeholder expectations.

While it is important to understand the technologies available to help the organisation leverage social media to achieve various organisational objectives, the key element is the “social” in social media. It is about the people first, and technology second. A genuine, people-centred approach to engage the stakeholder community will drive the social media strategy toward success and generate positive feedback for the organisation.